

d) REMARKS:

Claims 1 to 9, as amended, appear in this application for the Examiner's review and consideration. The amendments are fully supported by the specification and claims as originally filed.

Claims 1 to 6, 8, and 9 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by JP11-29863 ("JP '863") for the reasons set forth on pages 2 and 3 of the final Office Action of September 11, 2003, and claim 7 was rejected under 35 U.S.C. §103(a) as being unpatentable over JP '863 for the reasons set forth on page 4 of the final Office Action. The grounds of rejection are respectfully traversed.

In the present claimed invention, the emission intensity is adjusted to a target value to provide a preset value of film thickness. As disclosed in paragraphs [0093]-[0099] and as illustrated in instant Figs. 4-6 and 9-11, one way to hold film thickness constant is to increase the flow rate of O₂ gas (Fig. 7). However, Applicants have discovered that sheet resistance increases correspondingly (Fig. 9). However, since it has been found that transmittance is also gradually increased (Fig. 10), the conversion efficiency after prolonged film formation can be maintained at a satisfactory level (Fig. 11). The increase in transmittance has been found to compensate for the increase in sheet resistance, thus maintaining conversion efficiency (Figs. 4-6),

JP '863 fails to teach changing the emission intensity to remedy defects in a deposited film. Instead, JP '863 discloses changing the flow of a reactive gas into the film forming chamber when the emission intensity changes to maintain a constant emission intensity. This is not the process of the presently claimed invention in which the emission intensity is changed based on the thickness of the deposited film.

JP '863 fails to teach adjusting emission intensity to the target value to increase transmittance of the formed film to compensate for increase in film resistance. To the contrary, on [0018] of JP '836, it is disclosed that since oxygen flow rate changes a minute amount it does not deteriorate film quality greatly. Applicants have discovered that increases in oxygen flow rate do, in fact, cause the sheet resistance to increase in proportion to O₂ flow rate (see Figs. 4 and 9). Such increase in sheet resistance if not compensated will change conversion efficiency.

In JP '836 in paragraphs [0042-0043], it is said sheet resistance did not vary, while in paragraph [0049] sheet resistance fell (emphasis supplied). There is no teaching that to compensate for increased sheet resistance caused by changing oxygen flow rate or the like, transmittance is increased.

Therefore, since JP '863 discloses maintaining the emission intensity at a constant level, rather than varying the emission intensity to obtain a constant deposition rate, JP '863 does not disclose or even suggest the presently claimed invention, and, thus, the present claims are not anticipated by or rendered obvious over that reference. Accordingly, it is respectfully requested that the Examiner withdraw the rejections of the claims under 35 U.S.C. §§ 102(b) and 35 U.S.C. 103(a).

As all rejections are believed overcome, all claims are believed to be in condition for allowance. An early notice to that effect would be appreciated.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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